

SEQ ID NO	Sequence
1	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQKRY
2	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRY
3	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQK
4	Ac-HTEAVFTDQYTRLRKQVAACKYLQSIKQKRY
5	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKQGGT
6	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKR
7	Ac-HSDAVFTDQYTRLRKQLAACKYLQTIKQKRY
8	Ac-HSDAVFTDQYTRLRKQMAACKYLQTIKQKRY
9	Ac-HSDAVFTDQYTRLRKQMAAHKYLQSIKQKRY
10	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKQKRY
11	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKQKR
12	Ac-HSDAVFTDQYTRLRKQMAKKKYLQSIKQKR
13	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKQKR
14	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQKR
15	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIPOKR
16	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKR
17	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIROKR
18	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQORR
19	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKA
20	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKF
21	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKH
22	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKI
23	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKK
24	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKL
25	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKM
26	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKP
27	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKQ
28	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKS
29	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKT
30	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKV
31	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKW
32	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIQOKY
33	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIQORI
34	Ac-HSDAVFTDQYTRLRKQMAKKKYLQSIQORI
35	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIQORI
36	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIPORI
37	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIQORI

FIG. 1a

SEQ ID NO	Sequence
38	Ac-HSDAVFTDNYTLRKQVAAKKYLQSIKQKRY
39	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKRY
40	Ac-HSDAVFTDNYTLRKQVAAKKYLQSIKQK
41	Ac-HTEAVFTDNYTLRKQVAAKKYLQSIKQKRY
42	Ac-HSDAVFTDNYTLRKQLAVKKYLQDIKQGGT
43	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKR
44	Ac-HSDAVFTDNYTLRKQLAAKKYLQTIKQKRY
45	Ac-HSDAVFTDNYTLRKQMAAKKYLQTIKQKRY
46	Ac-HSDAVFTDNYTLRKQMAAHKYLQSIKQKRY
47	Ac-HSDAVFTDNYTLRKQMAAKHYLQSIKQKRY
48	Ac-HSDAVFTDNYTLRKQMAKKYLQSIKQKR
49	Ac-HSDAVFTDNYTLRKQMAKKYLQSIKQKR
50	Ac-HSDAVFTDNYTLRKQMARKKYLQSIKQKR
51	Ac-HSDAVFTDNYTLRKQMASKKYLQSIKQKR
52	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIPOKR
53	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIQOKR
54	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIROKR
55	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIQORR
56	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKA
57	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKF
58	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKH
59	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKI
60	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKK
61	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKL
62	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKM
63	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKP
64	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKQ
65	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKS
66	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKT
67	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKV
68	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKW
69	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIKQKY
70	Ac-HSDAVFTDNYTLRKQMAKKYLQSIKQRI
71	Ac-HSDAVFTDNYTLRKQMAKKYLQSIKQRI
72	Ac-HSDAVFTDNYTLRKQMASKKYLQSIKQRI
73	Ac-HSDAVFTDNYTLRKQMAAKKYLQSIPORI
74	Ac-HSDAVFTDNYTLRKQMASKKYLQSIRORI

FIG. 1b

SEQ ID NO	Sequence
75	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKNKRY
76	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKRY
77	Ac-HSDAVFTDQYTRLRKQVAAKKYLQSIKNK
78	Ac-HTEAVFTDQYTRLRKQVAAKKYLQSIKNKRY
79	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKNGGT
80	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKR
81	Ac-HSDAVFTDQYTRLRKQLAAKKYLQTIKNKRY
82	Ac-HSDAVFTDQYTRLRKQMAAKKYLQTIKNKRY
83	Ac-HSDAVFTDQYTRLRKQMAAHKYLQSIKNKRY
84	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKNKRY
85	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKNKR
86	Ac-HSDAVFTDQYTRLRKQMAKKKYLQSIKNKR
87	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKNKR
88	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKNKR
89	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSI PNKR
90	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIQNKR
91	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSI RNKR
92	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNRR
93	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKA
94	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKF
95	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKH
96	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKI
97	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKK
98	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKL
99	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKM
100	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKP
101	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKQ
102	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKS
103	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKT
104	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKV
105	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKW
106	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSIKNKY
107	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKNRI
108	Ac-HSDAVFTDQYTRLRKQMAKKKYLQSIKNRI
109	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKNRI
110	Ac-HSDAVFTDQYTRLRKQMAAKKYLQSI PNRI
111	Ac-HSDAVFTDQYTRLRKQMASKKYLQSI RNRI

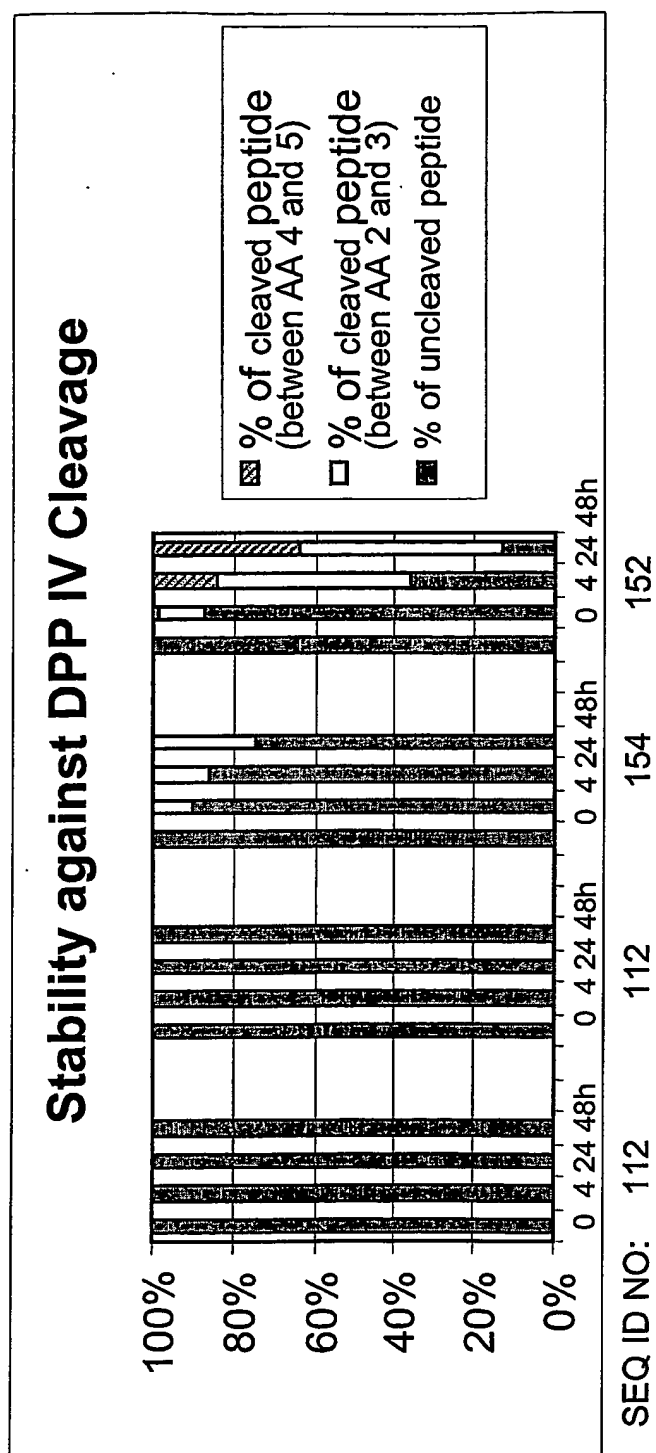
FIG. 1c

SEQ ID NO	Sequence
112	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQKRYC-PEG
113	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRYC-PEG
114	Ac-HSDAVFTDQYTRLRKQVAACKYLQSIKQKRC-PEG
115	Ac-HTEAVFTDQYTRLRKQVAACKYLQSIKQKRYC-PEG
116	Ac-HSDAVFTDQYTRLRKQLAVKKYLQDIKQGGTC-PEG
117	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRC-PEG
118	Ac-HSDAVFTDQYTRLRKQLAACKYLQTIKQKRYC-PEG
119	Ac-HSDAVFTDQYTRLRKQMAACKYLQTIKQKRYC-PEG
120	Ac-HSDAVFTDQYTRLRKQMAAHKYLQSIKQKRYC-PEG
121	Ac-HSDAVFTDQYTRLRKQMAAKHYLQSIKQKRYC-PEG
122	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKQKRC-PEG
123	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQKRC-PEG
124	Ac-HSDAVFTDQYTRLRKQMARKKYLQSIKQKRC-PEG
125	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQKRC-PEG
126	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRC-PEG
127	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRC-PEG
128	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRC-PEG
129	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKRC-PEG
130	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKAC-PEG
131	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKFC-PEG
132	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKHC-PEG
133	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKIC-PEG
134	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKKC-PEG
135	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKLC-PEG
136	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKMC-PEG
137	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKPC-PEG
138	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKQC-PEG
139	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKSC-PEG
140	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKTC-PEG
141	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKVC-PEG
142	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKWC-PEG
143	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQKYC-PEG
144	Ac-HSDAVFTDQYTRLRKQMAGKKYLQSIKQRIC-PEG
145	Ac-HSDAVFTDQYTRLRKQMAKKYLQSIKQRIC-PEG
146	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQRIC-PEG
147	Ac-HSDAVFTDQYTRLRKQMAACKYLQSIKQRIC-PEG
148	Ac-HSDAVFTDQYTRLRKQMASKKYLQSIKQRIC-PEG

FIG. 1d

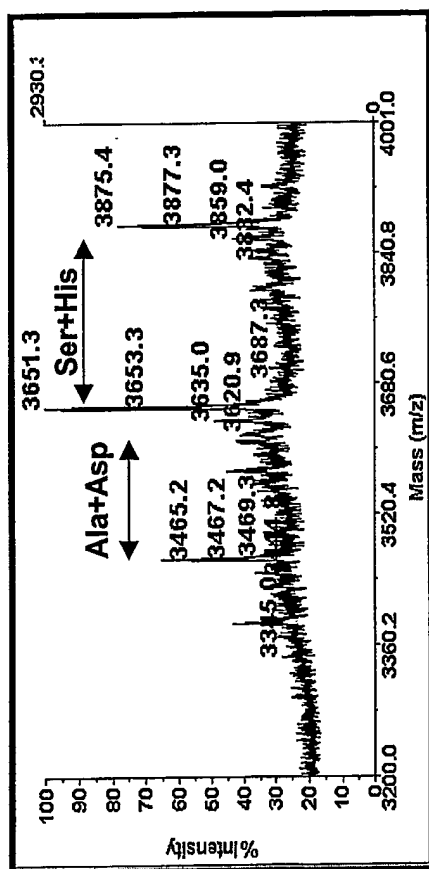
SEQ ID NO	Sequence
149	HSDGIFTDSYSRYRKQMAVKKYLA AVL GKRYKQ RVKNK (PACAP38)
150	HSDGIFTDSYSRYRKQMAVKKYLA AVL (PACAP27)
151	HSDAVFTDNYTRLRKQMAVKKYLNSILN (VIP)
152	HSDAVFTDQYTRLRKQVAAKKYLQSIKQKRY
153	Ac-HTDAVFTDQYTRLRKQVAAKKYLQSIKQKRY
154	HSDAVFTDQYTRLRKQVAAKKYLQSIKQKRYC-PEG
155	Ac-HTDAVFTDQYTRLRKQVAAKKYLQSIKQKRYC-PEG

FIG. 1e



## Figure 2a

**SEQ ID NO: 152 is  
cleaved by DPPIV**



**SEQ ID NO: 1 is not  
cleaved by DPPIV**

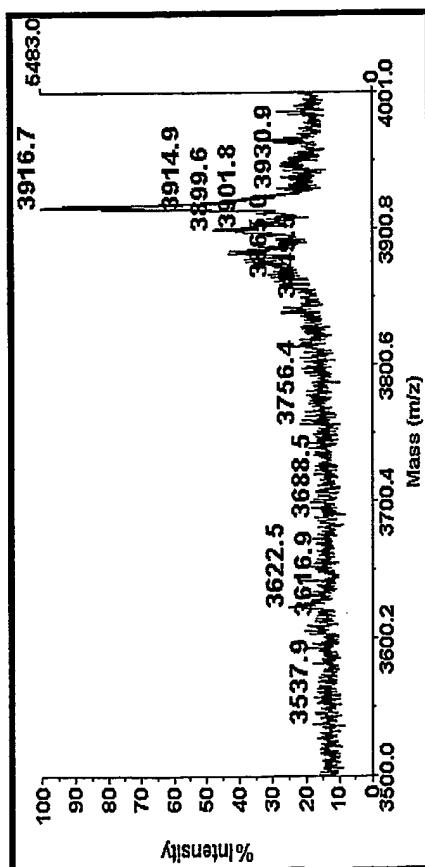


Figure 2b

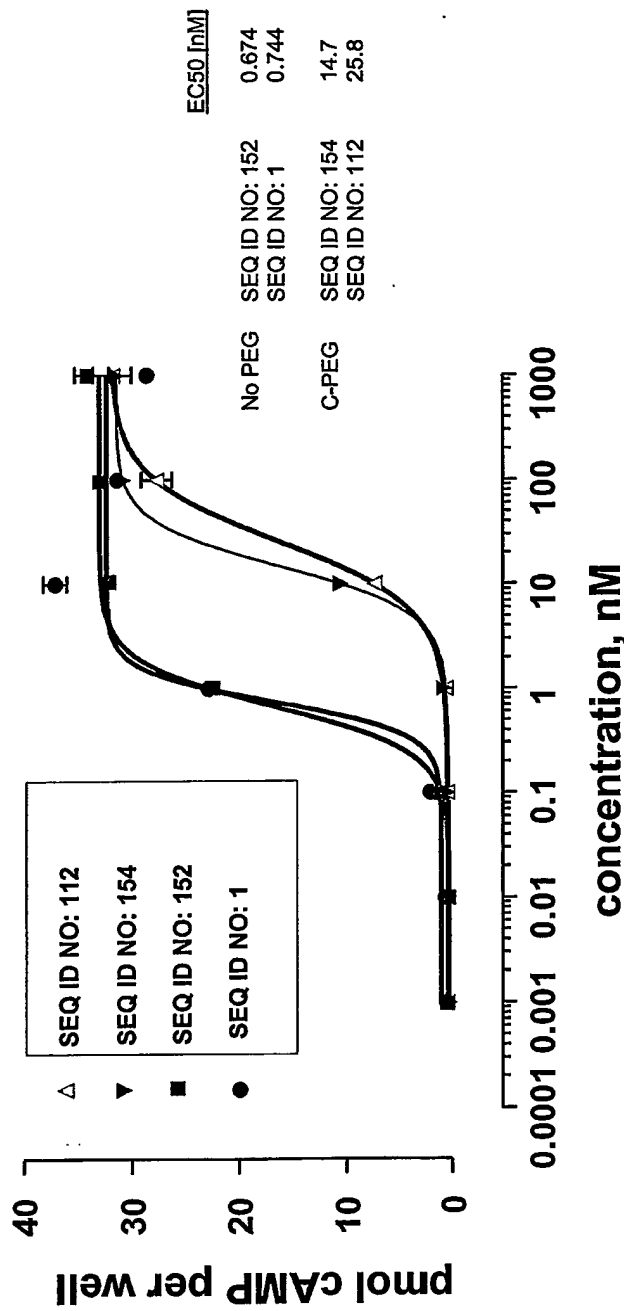


Figure 3



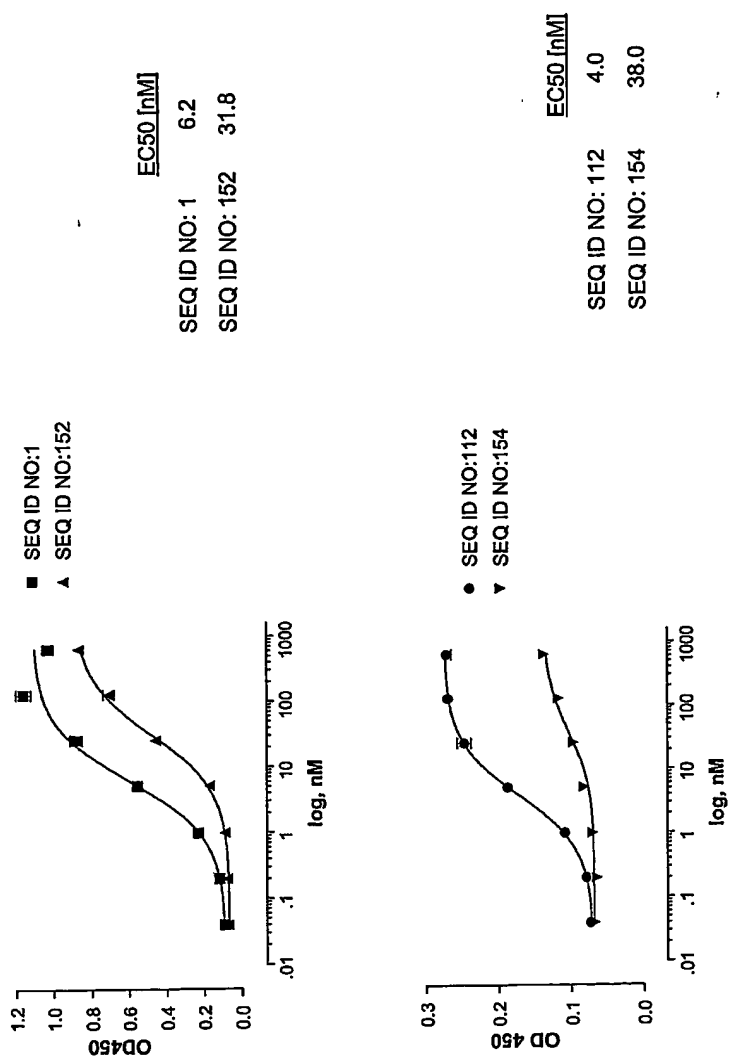
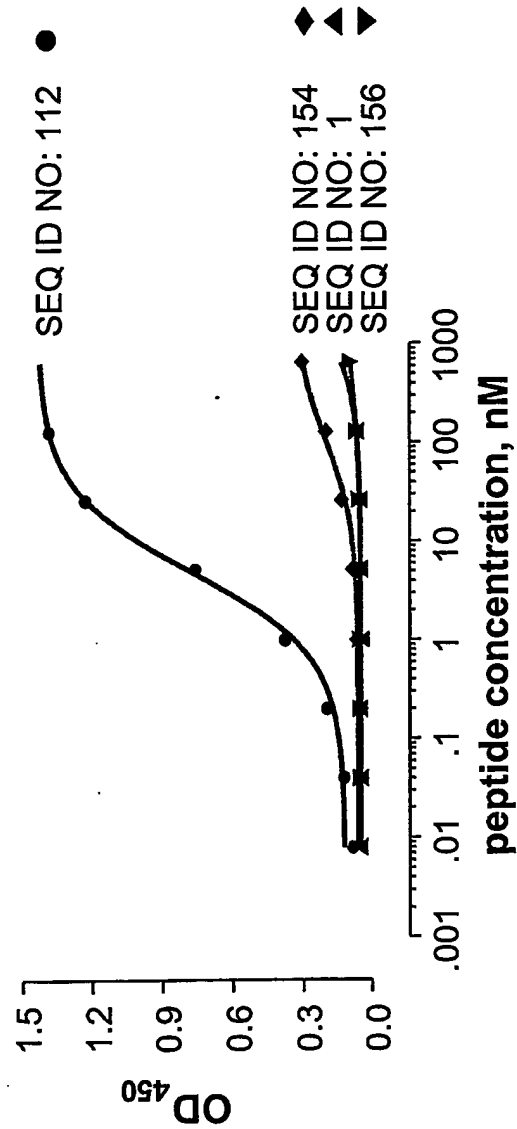


Figure 4a



SEQ ID NO:	112	1	156	154
EC50 (nM)	4.972	5834	332.6	103.3

Figure 4b

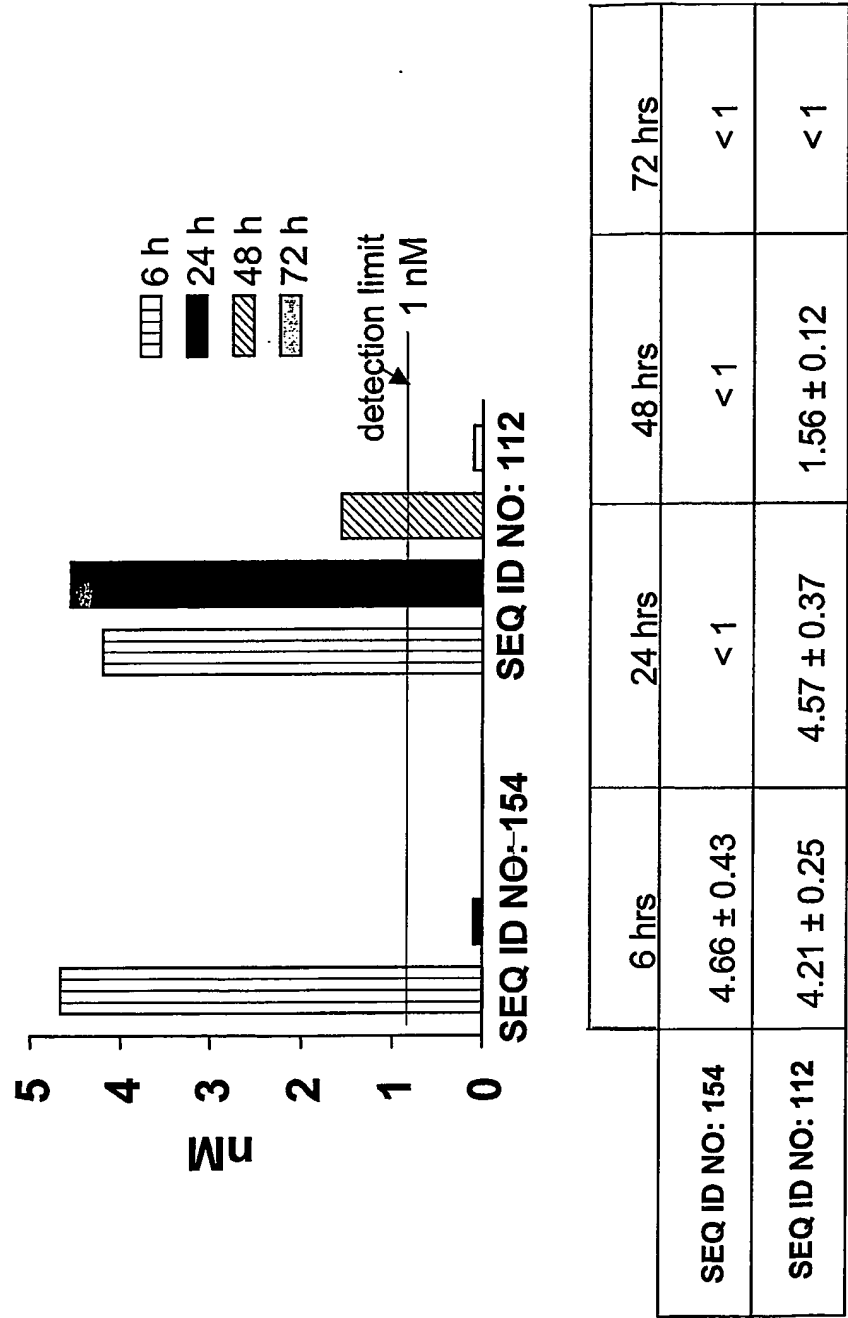


Figure 5a

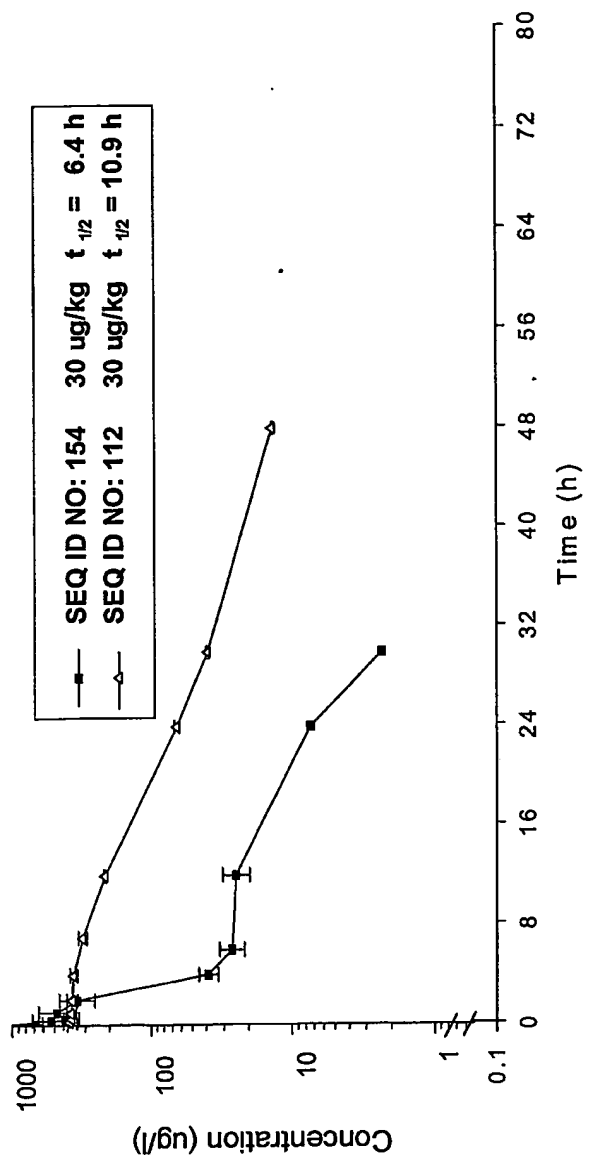


Figure 5b

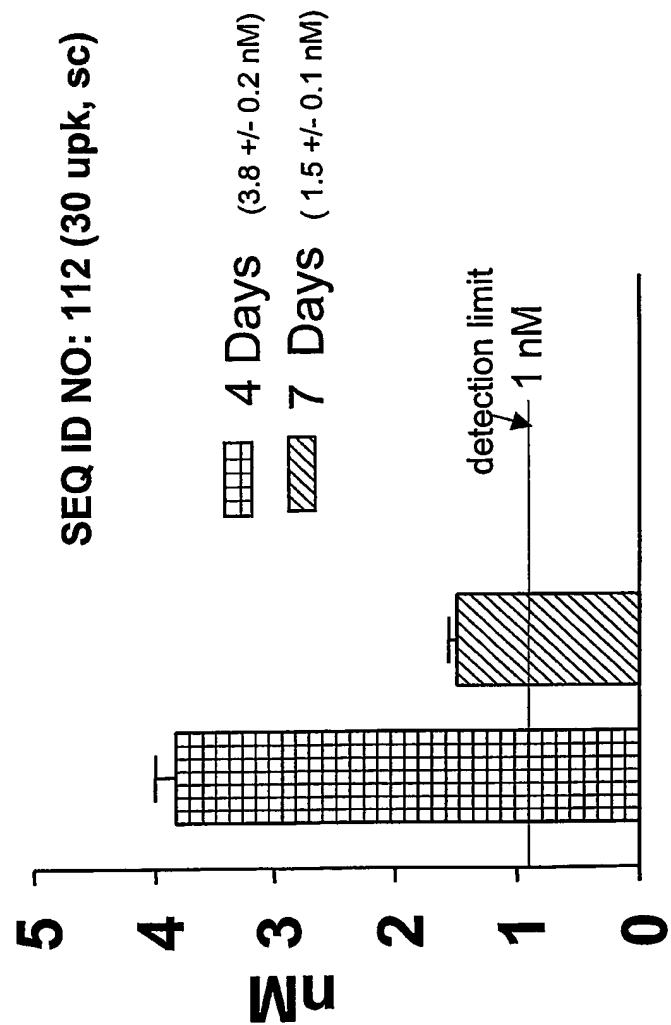


Figure 5c

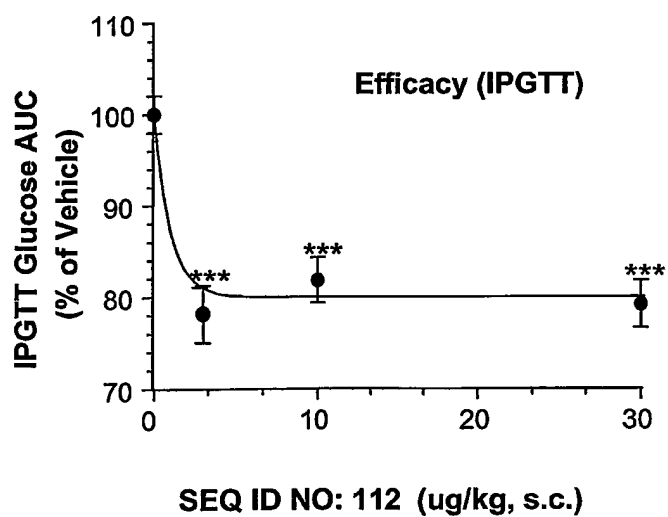
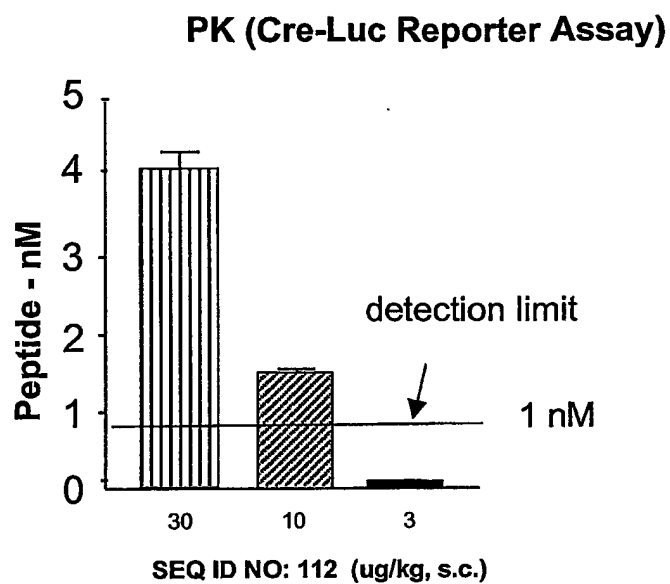


Figure 6a

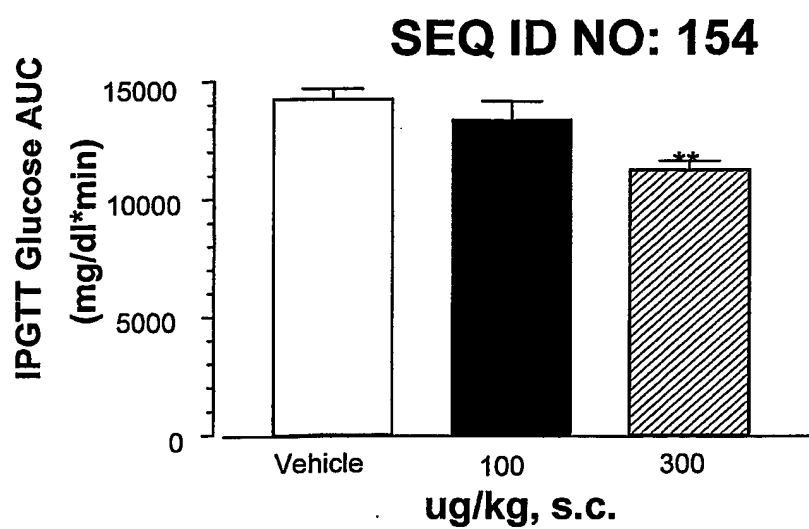
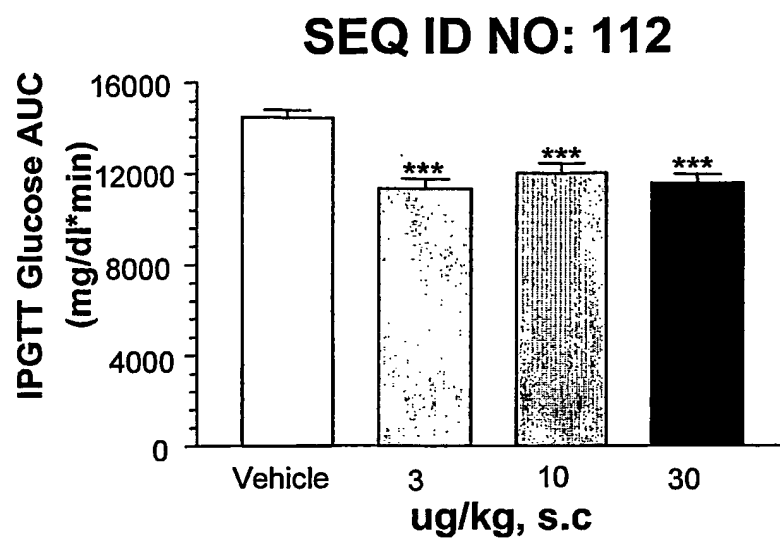
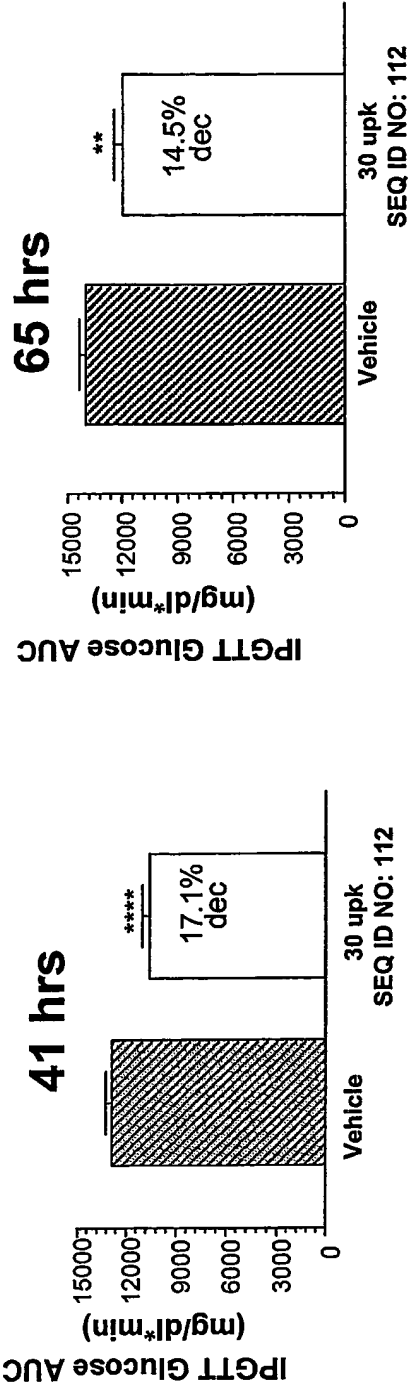


Figure 6b



	24 hrs	41 hrs	65 hrs
SEQ ID NO: 112	20 ± 3*	17 ± 2*	14.5 ± 3*

Figure 6c



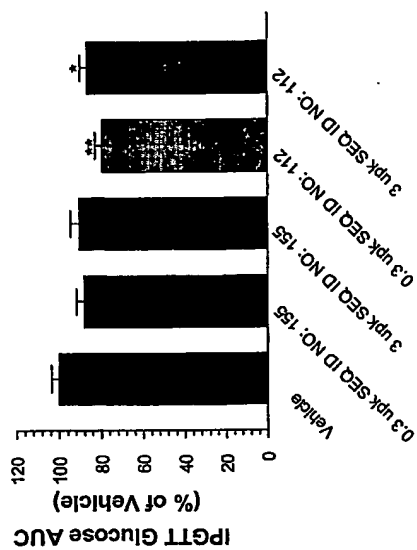
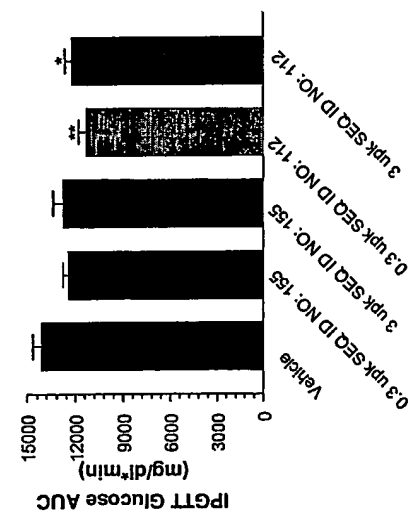
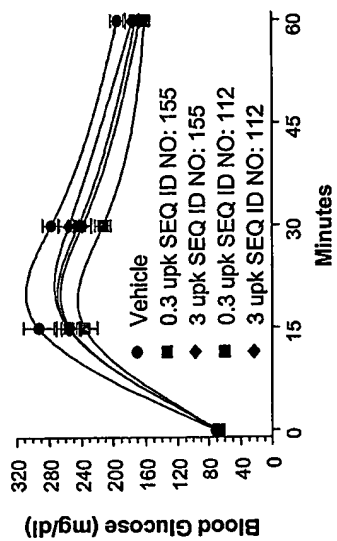


Figure 6d

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